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The Beatty Property

MINISTRY OF NORTHERN DEVELOPMENT, MINES, NATURAL RESOURCES AND FORESTRY 933 RAMSEY LAKE ROAD SUDBURY, ONTARIO P3E 6B5 T: 1.888.415.9845 F: 1.877.670.1444

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The Beatty Property Till Sampling Program

DATE:

September 22nd, 2022

SUBMITTED BY:

Sara Wigelsworth (Client# 408640) 450 Harmony Street Timmins, Ontario P4N 7A5

SUBMITTED TO:

Ministry of Northern Development, Mines, Natural Resources and Forestry 933 Ramsey Lake Road Sudbury, Ontario P3E 6B5 T: 1-888-415-9845 F: 1-877-670-1444

Introduction

The Beatty Property is located in Beatty Township of the Larder Lake Mining Division, northeastern Ontario. It consists of seven single cell claims and two boundary cell claims currently owned by Mr. Patrick Gryba, Mr. Clayton Larche and Ms. Sara Wigelsworth. Previous prospecting attempts yielded little results, therefore, a till sampling program was undertaken in efforts to understand the geochemical constituents of the local soil profile. Till samples were analyzed via fire assay to determine the gold content present.

Location and Access

The Beatty Property is located in the north half of Lot 8 Concession I, Beatty Township, Larder Lake Mining Division approximately seven kilometers east of Matheson, Ontario (see Appendix A). The property is situated 0.8 kilometers north of Highway 101 east and can be accessed via Aspen Road (also known as Beatty Road #4) which constitutes the eastern claim boundary (see Appendix B). Previous logging of this area has provided very good access to the property.

Background and Description

The Beatty Property was staked on March 3rd, 2016 consisting of four units within one claim block encompassing approximately 200 acres/80 hectares (see Appendix C). During the first few months of 2018 the Ministry of Northern Development, Mines, Natural Resources and Forestry (NDMNRF) completed their online conversion of ground-staking to map-staking for the province of Ontario. The new mining lands administration system was launched on April 10th, 2018 and reflects a cell-based claim acquisition process in which clients can obtain mineral tenure via an online transaction. A detailed cell grid overlays the entire province and coincides with existing patent and legacy claim fabric.

Due to this process, the Beatty Property became a legacy claim as a result of its pre-existing nature prior to the conversion. Therefore, it has both identifications – both a legacy claim classification and cell claim classification. In cases where two legacy claims share a common cell they are referred to as boundary cells, which is also applicable regarding the Beatty Property (see Appendix D).

- Legacy claim 4279048 (red outline)
- Cell claims 128107, 174190, 192146, 204262, 287450, 308161, 335722 (orange outline)
- Boundary claims 174173, 335721 (yellow outline)

The property displays varying topography dominated by higher elevations to the northeast and lower elevations to the southwest. This is due to Salve Creek that meanders through the west side of the property as well as the presence of Leach Lake straddling the south boundary. Vegetation present on the property includes spruce, jack pine, birch and poplar in the higher elevated areas as well as sparse cedars and tag alders in the lower elevated areas. The shorelines of Salve Creek are predominantly covered in tag alders where active erosion is quite evident. This is due to the weak corrosive nature of the overburden as well as the higher water levels at the time. The shorelines of Leach Lake appeared more grass-like representing more of a low-lying swamp-like area. The higher topographic areas appear to consist mostly of clay and sand overburden displaying little to no outcrop evidence.

During the time of ground staking the property was fully vegetated, however, it's apparent that logging activity has been completed in the last few years. The property had been clear cut for the most part between Aspen Road and the aforementioned creek to the west. This provided excellent access and optimal opportunity for exploration.

Regional Geology

The Beatty Property is situated within the Abitibi greenstone belt in the southeastern part of the Archean Superior Province of Canada's Precambrian Shield. The low metamorphic grades, the pristine preservation of the volcanic and sedimentary features, and abundant mineral resources have attracted worldwide interest (Luinstra and Benn, 2001). As a result of these geological factors, the Abitibi greenstone belt has historically been referred to as Canada's most prolific gold district. More than 172 million ounces of gold have been produced from this district, representing nearly half of Canada's total gold production.

This area hosts the Timmins Gold Camp that contains the Porcupine-Destor Fault – a main east-west structure which has a total strike length of 200 kilometers extending across the region. This fault is responsible for the majority of Ontario's gold deposits and is considered a highly prospective gold-bearing and base metal structure. The Porcupine-Destor Fault is associated with the regional geology of the Highway 101 area as well as the Beatty Property.

A detailed regional description can be found in B.R. Berger's 2002 report on the geology of the Highway 101 area:

Neoarchean supracrustal rocks, which are intruded by Paleoproterozoic and

Keweenawan-age diabase and Mesozoic kimberlite dikes and pipes underlie the Highway 101 area. The supracrustal rocks are composed of ultramafic, mafic, intermediate and felsic metavolcanics rocks, related intrusive rocks, clastic and chemical medasedimentary rocks, and a suite of ultramafic to felsic alkalic plutonic and metavolcanic rocks. These rocks are divisible into five distinct packages based on morphology, petrography, geochemistry and geochronology. The five assemblages, from oldest to youngest, are the Kidd-Munro, Tisdale, Kinojevis, Porcupine and Timiskaming assemblages. The first three are predominantly composed of metavolcanics rocks; the latter two are predominantly composed of metasedimentary rocks.

Property Geology

The Beatty Property displays very little presence of outcrop occurrences (see Appendix F). However, based on historic O.G.S. maps, the majority of the property is thought to be underlain by mafic volcanics with early Precambrian metasediments in the very northeast corner (Meikle, 1990). A northwest-southeast contact located in the northeast corner of the property is depicted on the map, which is either coincident or subparallel to the projected Porcupine-Destor Fault (Meikle, 1990).

The geophysical surveys conducted over the years have concluded similar results. The majority of the property is magnetically featureless, indicating a general uniformity of an underlying source as being mafic volcanics (Breton, 1989). However, there is the presence of a centrally located magnetic high trending east-west, which is considered to be a diabase dike (Grant, 2005). There is also a modest magnetic low located in the southwestern portion of the property, thought to represent the Porcupine-Destor Fault (Grant, 2005).

Exploration History

The Beatty Property is situated within the Highway 101 east vicinity, which is commonly referred to as the Golden Highway due to the number of prolific gold deposits and occurrences in the area. Extensive mineral exploration of this area has been ongoing for nearly a century in the search of various economic commodities including gold, silver, copper, nickel, zinc and asbestos. Such efforts are responsible for the discovery of several significant producing and past-producing mines. Most notably is the Croesus Mine (1914-1918), which is considered one of the richest gold mines in Canada due to its production of some of the highest-grade ore ever mined in Ontario. Other mines include the Holt-McDermott Mine, Holloway Mine, Ross Mine, and Black Fox Mine (see Appendix E).

Documented evidence of exploration on the Beatty Property has been limited over the years. Historical maps indicate the property was a series of unpatented mining claims since the 1960's and perhaps patents or private property prior to that. Otherwise, there were several work reports submitted between the 1980's – 2000's that are specific to exploration on the Beatty Property. These are predominantly geophysical in nature:

1981 (G.E. Parsons) – VLF-EM survey in compilation with geological mapping
1989 (Noranda Exploration Company Ltd.) – ground magnetometer survey
1990 (Noranda Exploration Company Ltd.) – VLF-EM and magnetometer survey
2003 (L.Gervais) – HLEM survey
2005 (JML Resources Ltd.) – magnetic survey, IP survey
2017 (C. Larche, S. Wigelsworth) – prospecting, XRF survey

Sampling Program

On October 17th, 2021 a till sampling program commenced on the Beatty Property by two personnel:

- Sara Wigelsworth (client #408640) of Timmins, Ontario
- Matthew Lapointe of Timmins, Ontario

Before commencing a field program, several hours were spent completing research and data compilation in efforts to identify areas of interest based on historic assessment work reports as well as maps. Areas of interest were predominantly focused on regions of higher topographic relief that may represent potential till features present on the property. It is unknown how thick the overburden may be due to the fact that the property has never been drilled.

The project area was accessed with the use of 2020 Dodge Ram pick-up truck and a 2012 Honda TRX420 all-terrain vehicle. Other equipment utilized for this program include a cellular phone with the "Canada Maps" GPS application for navigation and traversing as well as various sampling tools such as an auger, sample bags, notepad, etc.

As mentioned previously, the majority of the property had been clear cut for logging purposes since the time of ground staking. This provided excellent access with the use of an ATV not only on the new logging roads but also through clear cut areas. This also allowed for optimal traversing conditions and drastically increased the long-distance sight range in search of till features. Due to the time of year, the area proved quite wet and muddy as a result of recent precipitation.

Conventional soil sampling usually targets shallower depths from the subsoil (B) horizon, however, till sampling is designed to target the substratum (C) horizon deeper in the soil profile (see Figure 1). Till specimens are utilized to determine ice flow direction and regional geological composition. Different types of till can be identified depending on a variety of factors including compaction and clast size/shape; most notably, basal (lodgement) till and melt-out till. Generally speaking, basal till is usually lodged between the bedrock and glacier with characteristics such as strong compaction and angular to subangular clasts. Melt-out till is usually deposited as a result of a melting glacier with characteristics such as moderate compaction, more rounded clasts and variable clast size.



Figure 1: Conventional soil horizon profile

A traverse was completed over the Beatty Property with till sampling efforts focused on the areas of interest mentioned previously. The goal was to identify and follow potential till streaks for sampling rather than a more systematic sampling approach. An auger was used to extract samples; it was a maximum of one meter in length and was turned in a clockwise fashion in order to penetrate the soil profile. Certain characteristics were sought after while sampling such as compaction, matrix material, clast content and depth. These factors were utilized to determine sample sites versus fail hole sites; descriptions for samples collected can be viewed below.

Daily Log

October 16th, 2021: Conducted research and historic data compilation in preparation for fieldwork in efforts to locate potential till features.

- Reviewed mineral deposit inventories for Beatty Township and surrounding areas
- Downloaded and studied historic assessment work reports for the Lot 8 Concession I Beatty Township
- Examined historic claim maps and topography maps of the area
- Entered claim boundaries into GPS application

October 17th, 2021: Completed till sampling on Beatty Property focusing on areas of higher topographic relief

- Accessed the south-center area of the property and began a traverse that trended south towards Leach Lake
- Began traversing northwest from southern boundary to the northwestern corner
- Traversed west to Salve Creek

October 22nd, 2021: Prepared samples for analysis and delivered to lab

November 15th, 2021; January 4th, January 5th, January 6th, 2022: Report writing

September 22nd, 2022: Final report writing and submittal

Sampling Results

One potential north-west trending till streak was located on the Beatty Property. However, the overburden proved to be quite thick. As a result, no bedrock was encountered and the sample quality was considered poor. A total of 15 stations were tested, eight yielding fail holes and seven yielding samples, all between the depths of 50cm to 90cm (see Appendix G). The samples can likely be described as melt-out till given the poor quality and the fact that bedrock was not encountered.

The dominant soil matrix on the property is clay with lesser sand and silt. This may be explained by past glaciolacustrine activity creating areas of low topographic relief. The clay matrix was consistent with strong compaction and clast-deficiencies. Areas of higher topographic relief were dominated by sand and silt. These were less compact and displayed abundant clasts compared to their clay counterparts. Clasts were quite small and appeared to be mafic in nature, which corroborates with the idea that the area is underlain by mafic volcanics. Station Descriptions

Station A (547290/5377290): clay; fail hole; no sample

Station B (547236/5377292): coarse sand; fail hole; no sample

Station C (547089/5377085): clay; fail hole; no sample

Station D (547061/5377210): silt; fail hole; no sample

Station E (547058/5377291): sand; fail hole; no sample

Station F (547068/5377399): clay; fail hole; no sample

Station G (547048/5377526): sample 609001; see Figure 2

- sandy matrix
- clasts mafic in nature; very small (mm-scale)
- medium brown colour
- moderate compaction
- 60cm depth; bedrock not encountered

Station H (547043/5377503): sample 609002; see Figure 3

- sandy matrix
- clasts mafic in nature; small (mm-scale)
- medium brown colour
- moderate compaction
- 60cm depth; bedrock not encountered

Station I (546960/5377596): sample 609003; see Figure 4

- sandy matrix
- clasts mafic in nature; very small (mm-scale)
- medium brown colour
- moderate compaction
- 60cm depth; bedrock not encountered

Station J (546952/5377661): silt; fail hole; no sample

Station K (546936/5377687): sand; fail hole; no sample

Station L (546912/5377677): sample 609004; see Figure 5

- silty-sand matrix; more silt, lesser sand
- clasts mafic in nature; small (mm-scale)
- light brown-beige colour
- moderate compaction
- 55cm depth; bedrock not encountered

Station M (547176/5377374): sample 609005; see Figure 6

- silty-sand matrix; more sand, lesser silt
- absence of clasts, but nice matrix
- light brown colour
- moderate compaction
- 90cm depth; bedrock not encountered

Station N (547216/5377267): sample 609006; see Figure 7

- clay matrix
- absence of clasts
- medium brown colour
- strong compaction
- 90cm depth; bedrock not encountered

Station O (547237/5377288): sample 609007; see Figure 8

- sandy matrix
- many clasts present; varying sizes
- medium brown colour
- moderate compaction
- 50cm depth; bedrock not encounter

Sample Photos



Figure 2: Sample 609001



Figure 3: Sample 609002



Figure 4: Sample 609003



Figure 5: Sample 609004



Figure 6: Sample 609005



Figure 7: Sample 609006



Figure 8: Sample 609007

Analysis

Of the 15 sample sites tested only seven yielded samples worth collecting. These were dried, sieved and tested via aqua regia digestion ultratrace ICP-MS analysis (AQ-252) with Bureau Veritas Laboratories. Samples were assayed for a suite of 53 different mineral elements; ones of economic interest include gold, silver, and base metals such as nickel, copper and zinc. Other non-economic minerals, such as arsenic, may represent pathfinder elements that are indicative of other interesting geochemical features. Samples 609006 and 609007 produced elevated levels of base metals including copper and zinc as well as silver and cobalt while sample 609002 produced elevated gold levels. Overall, the assay values were quite low for the majority of elements tested.

Conclusion and Recommendations

The till sampling program completed on the Beatty Property was successful in locating and sampling potential till features. However, given the nature of the thick overburden and lack of exposed outcrop, it is recommended:

- a) Utilization of sonic drilling to gain a better depth and understanding of the soil profile.
- b) Utilization of diamond drilling to gain a better understanding of the geology.

References

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Meikle, R.J., 1990

Geophysical report on the Beatty Township property; Claims 1036741-1036744 inclusive for Noranda Exploration Company.

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Figure 1: Conventional Soil Horizon Profile; adapted from Soil Horizons Development & Soil Profile, Plantlet < https://plantlet.org/soil-horizons-development-soil-profile/>

Qualifications

I, Sara Wigelsworth, of 450 Harmony Street in the city of Timmins, Ontario, do hereby certify that:

- 1. I am an exploration contractor and have been practicing my profession for over twelve years.
- 2. I am a graduate of the University of Saskatchewan having received a B.Sc. Hon. in Archaeology in 2009.
- 3. My knowledge of the property described herein was obtained by my fieldwork and documentation.

Respectfully submitted,

Jarawijeland

Sara Wigelsworth

Assays

																			1	
Samplo	Element	Weight	Мо	Cu	Pb	Zn	Ag	Ni	Со	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	v
Number	Unit	KG	PPM	PPM	PPM	PPM	PPB	PPM	PPM	PPM	%	PPM	PPM	PPB	PPM	PPM	PPM	PPM	PPM	PPM
	MDL	0.01	0.01	0.01	0.01	0.1	2	0.1	0.1	1	0.01	0.1	0.1	0.2	0.1	0.5	0.01	0.02	0.02	1
609001	Soil	0.49	0.11	2.42	3.81	17.8	3	7.2	3.1	112	0.97	0.6	0.3	0.6	5.1	6.8	0.07	<0.02	<0.02	24
609002	Soil	0.63	0.07	2.4	3.14	15.1	8	9.2	2.8	64	0.98	0.9	0.4	20.6	6.2	7.2	0.04	<0.02	<0.02	26
609003	Soil	0.65	0.16	3.29	4.71	12.1	10	11.2	4.5	95	1.63	0.9	0.6	0.2	10.7	8.7	0.04	<0.02	0.03	38
609004	Soil	0.8	0.11	4.05	4.35	13	11	15.9	5.7	115	1.07	1.3	0.6	2.3	6.5	12	0.07	<0.02	<0.02	28
609005	Soil	0.9	0.11	2.14	3.04	13.3	6	8.1	3.6	97	0.75	1.2	0.6	5.6	6.9	8.9	0.06	<0.02	<0.02	19
609006	Soil	0.7	0.68	10.95	6.03	24.3	15	21.4	6.3	230	1.43	1.7	0.5	9.7	7	15	0.03	0.03	0.06	31
609007	Soil	0.78	0.18	23.13	3.96	27.7	20	29.8	7.1	242	1.4	1.9	0.4	1.2	6	9.2	0.04	0.03	0.02	33
			T		[[]					T	<u> </u>	1	T						1
Sample Number	Element	Weight	Са	Ρ	La	Cr	Mg	Ва	Ti	В	AI	Na	K	W	Sc	TI	S	Hg	Se	Те
	Unit	KG	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPM	PPM	%	PPE	B PPM	PPM
	MDL	0.01	0.01	0.001	0.5	0.5	0.01	0.5	0.001	1	0.01	0.001	0.01	0.1	0.1	0.02	2 0.0)2 5	5 0.1	0.02
609001	Soil	0.49	0.14	0.082	10	17.9	0.15	14.3	0.046	<1	0.85	0.005	0.03	<0.1	1.2	0.03	3 <0.0)2 9	9 0.1	<0.02
609002	Soil	0.63	0.15	0.042	11.8	17.9	0.1	6.8	0.044	<1	0.51	0.005	0.02	<0.1	1.1	<0.02	2 <0.0)2 <5	0.1	<0.02
609003	Soil	0.65	0.19	0.043	16.8	26.8	0.18	13.9	0.055	<1	0.74	0.006	0.03	<0.1	1.3	0.03	3 <0.0)2 <5	<0.1	<0.02
609004	Soil	0.8	0.24	0.058	14.6	30.8	0.23	24.6	0.075	3	1.08	0.01	0.05	<0.1	2.2	0.0	5 <0.0)2 10	0.1	<0.02
609005	Soil	0.9	0.19	0.057	14.8	17.4	0.12	8.9	0.045	<1	0.56	0.007	0.02	<0.1	1.2	<0.02	2 <0.0)2 <5	<0.1	<0.02
609006	Soil	0.7	0.26	0.039	18.2	41.3	0.4	40.1	0.081	3	1.31	0.012	0.11	<0.1	3.6	0.1	1 <0.0)2 14	4 <0.1	<0.02
609007	Soil	0.78	0.24	0.038	14.2	34.1	0.42	21.3	0.063	<1	0.78	0.007	0.07	<0.1	2.1	0.08	8 <0.0)2 <5	0.2	<0.02
	Flowert	Maight	6	6	60	116	NIL	Dh	6	То	7	v	60	l m	De	Ba		Dd	D+	
Sample Number	Lipit	Veigit																		
		0.01									0.1		0.1		2 1			1 10	2	
600001	Soil	0.01	2.0	0.02	0.1	<0.02	0.02	2.4	0.1	0.05	0.1	2.47	10.1	<0.0	$\frac{2}{2}$. 0.1	10	<u> </u>	
609001	Soil	0.49	2.9	0.51	<0.1	<u> </u>	0.80	5.4 2	0.4	<0.05	1	2.47	22.1	<0.0	2×1	-0.1	. 7.0		<2	
609002	Soil	0.05	1.0	0.2	<0.1	0.1	0.71	2 1 C	0.7	<0.05	1	3.00	23.2	<0.0	$\frac{2}{2}$	<0.1 0.1	00		<2	
600004	Soil	0.05	2.7	0.4	<0.1	0.05	0.8/	4.0	0.2		2	3./3	51.3		2 < 1	0.1	. <u>8</u> .0		<2	
609004	SOIL	0.8	2.4	0.45	<0.1	0.07	1.18	5.9		<0.05	3.1	4.6	31	<0.0	2 <1	0.6		<10	<2	
609005	SOIL	0.9	1.5	0.21	<0.1	0.09	0.84	2./	0.5	<0.05	3.5	4.18	30.3	<0.0	2 <1	<0.1	3.6		<2	
609006	Soil	0.7	3.6	0.82	<0.1	0.09	0.79	11.7		< 0.05	5.1	5.64	38.2	<0.0	2 <1	0.5	12.5	o <10	<2	
609007	Soil	0.78	2.4	0.63	<0.1	0.05	0.61	7.8	0.3	<0.05	1.7	3.88	36.1	<0.0	2 <1	<0.1	9.5	<10	<2	

Appendices

Appendix A – Locational Map

Appendix B – Access Map

Appendix C – Legacy Claim Map

Appendix D – Cell Claim Map

Appendix E – Mine Sites Map

Appendix F – Geology Map

Appendix G – Sample Location Map



Appendix A - Locational Map



Appendix B - Access Map

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Legend: Red diamond = sample site, blue x = fail hole site